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BY ORDER OF THE COMMANDER 434 AIR REFUELING WING

434 AIR REFUELING WING INSTRUCTION 21-108

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Maintenance

FUNCTIONAL CHECK FLIGHT PROCEDURES

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This instruction implements AFPD 21-1, *Managing Aerospace Equipment Maintenance*. It establishes Functional Check Flight (FCF) procedures to ensure proper coordination with the Logistics Group Commander (LG), Quality Assurance Office (QAO), Aircraft Generation Squadron, (AGS), Operations Group Commander, (OG), and Standardization and Evaluation Office (SEO). It applies to each of the above agencies and all personnel at Grissom ARB involved in the scheduling and performance of FCFs.

SUMMARY OF REVISIONS

This revision is changed to update current references, and to align to the revised T.O. 1C-135-6CL-1, *Acceptance and/or Functional Check Flight Checklists*. A (|) indicates revisions from the previous edition.

References: T.O. 00-20-5, Aircraft, Drone, Aircrew Training Devices, Engines, and Air Launched Missile Inspections, Flight Reports, and Supporting Maintenance Documents; T.O. 1-1-300, Acceptance/Functional Check Flight and Maintenance Operational Checks; AFI 21-101, Aircraft Maintenance Guidance and Procedures. AMCI 21-101, Maintenance Management Policy, AFRCI 21-101, Aircraft Maintenance Guidance and Procedures.

1. Functional Check Flight Procedures and Responsibilities: The LG and the OG both share in FCF responsibility and procedures. The office responsible for management of the FCF program in the LG is the QAO. The office responsible for management of the FCF program in the OG is the SEO. The following procedures and responsibilities apply in the performance of the FCF:

- 1.1. Accomplish FCF only by an aircrew designated by the OG commander as FCF qualified and supervised by the QAO. Prior to the FCF, satisfy all requirements of T.O. 1-1-300.
- 1.2. Accomplish FCF only if maintenance operations checks performed in accordance with applicable technical data can not determine air worthiness.
- 1.3. Duration of flight will be determined by the responsible maintenance officer or pilot, but must be sufficient to accomplish checklist requirements at specific altitudes and determine that the effected equipment is operating properly.
- 1.4. The operations group commander or equivalent will designate in writing authorized flight crews for FCF. Review and update this letter as necessary.
- 1.5. AGS responsibilities are:
- 1.5.1. Ensuring the aircraft preflight is complete and no open discrepancies exist that affect the air worthiness of the aircraft or the systems requiring the FCF.
- 1.5.2. Reviewing the aircraft forms and completing the exceptional release by an individual identified on the special certification roster.
- 1.5.3. Servicing the aircraft forms and completing the exceptional release by an individual identified on the special certification roster.
- 1.5.4. Taking the aircraft forms to the QAO for review and processing for the FCF.
- 1.6. QAO responsibilities are:
- 1.6.1. Verifying the preflight inspection and that no open discrepancies exist which affect the air worthiness of the aircraft or the systems involved in the FCF.
- 1.6.2. Entering the write up in the aircraft forms for the FCF and the reason for accomplishment.
- *1.6.3. Initiating an FCF checklist, T.O. 1C-135-6CL-1. **NOTE:** Line non-applicable checklist blocks out or put "N/A" in red in those blocks.
- 1.6.4. Briefing the flight crew on the following:
- 1.6.4.1. The purpose for flying the FCF.
- 1.6.4.2. Previous maintenance problems and discrepancies recorded on the aircraft and/or system/equipment relating to the FCF.
- 1.6.4.3. A review of the aircraft weight and balance documents.

- *1.6.4.4. Documentation required as referenced in T.O. 00-20-5 and T.O. 1C-135-6CL-1 checklist.
- 1.6.4.5. Boundaries of the local check flight area.
- 1.6.5. Conducting the formal debriefing.
- 1.7. The FCF Flight Crew is responsible for:
- 1.7.1. Flight crew specialties responsible for in-flight operation of systems to be evaluated will be manned by designated FCF qualified individuals.
- *1.7.2. Being familiar with the requirements of T.O. 00-20-5 and the inspection and procedural requirements of T.O. 1.1-300, and applicable –6 and –6CF-1. **NOTE:** These technical orders are available for review at the QAO during the briefing.
- 1.7.3. Accomplishing the FCF as briefed and in accordance with directives.
- 1.7.4. Entering discrepancies in the aircraft forms in a clear and concise manner.
- 1.7.5. Completing applicable portions of the FCF checklist, 1C-135-6CL-1.
- 1.7.6. Completing a formal debrief with the QAO and the crew chief at the conclusion of the flight.

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